

REMARK

Applicant respectfully requests reconsideration of this application as amended. Claims 1-69 remain in the application. Claim(s) 48 have been amended. No claims have been canceled. No claims have been added.

35 U.S.C. §112, second paragraph

The Office Action rejects Claims 35-40, 48, 49, and 51 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 35-40 and 51, Applicant directs the Examiner to paragraph 13 of Applicant's specification, which introduces mirroring. Mirroring is also discussed in paragraphs 39-41, 45, 48, 53, and 65. However, Applicant respectfully submits that limitations should not be read into the claims from the specification.

The Applicant amended claim 48 to correct a typographical error which the Examiner properly understood to be "network elements." As such, Applicant respectfully submits that this amendment is non-narrowing and the correction was impliedly already present.

35 U.S.C. §102 rejection

The Examiner has rejected claims 1-5, 7, 17-23, 25-31, 33-34, 43, 46-48, 50, 52-61, 63-66, and 68-69 under 35 U.S.C. §102(b) as being anticipated by Takatori. The Applicant respectfully disagrees.

Claim 1

Takatori describes a switch for use in a node. Takatori discusses the "connections" formed by the switch, and how they are changed for protection switches and protection un-switches. Specifically, Takatori describes switching at the STS-1 level

(“The present embodiment aims at switching at a unit of STS-1” col. 5, lines 8-11). Takatori does not address the concept of programming “concatenations,” and thus does not address reprogramming them responsive to protection switches and un-switches. With regard to concatenations, see at least Applicant’s specification at paragraph 9 which describes what they are, paragraph 10 which describes how they are structured in the prior art, and paragraph 11 which describes how they are programmed on ports in the prior art. Concatenations and their programming are different from the installation of cross connections and the switching of traffic for protection (see paragraphs 8 and 12 of Applicant’s specification which address this in the prior art). Specifically, paragraph 12 discusses why concatenations in the prior art do not need to be reprogrammed on protection switches and un-switches.

Applicant believes that the term “switch” and the “connections” it forms in Takatori are being confused with the claim terms “reprogram” and “connection configuration.” Applicant’s specification states at paragraph 46 the following:

“While the above-described exemplary application of the invention operates on STS and concatenated STS sized components, it should be understood that the invention is not limited to this. Rather, the mechanism described below can be used for other sized components. For this reason, the term “connection configuration” is used herein. A connection configuration identifies the usage of components on a set of channels. Thus, while a connection configuration typically includes the STS concatenation configuration for the set of channels, it is not limited to this size of components (STS and concatenated STS). For example, a connection configuration can also identify the usage of smaller sized components (e.g., VT and VT

concatenations) for one or more STSs. Thus, to the extent that STSs are discussed below, it is understood that this is done for exemplary purposes.”

Applicant’s claim 1 requires “a traffic handler to reprogram, responsive to protection switches and un-switches, the connection configuration on the protecting channels of the sub-spans of the first and second spans that provide traffic to the network element.” Thus, claim 1 uses the terms “reprogram, responsive to ... switches and un-switches” and targets the “connection configuration” on the “protecting channels of the sub-spans of the first and second spans that provide traffic to the network element” to distinguish over the prior art. By way of illustration, and not limitation, Applicant directs the Examiner to paragraph 50 which states “In addition to reprogramming the connection configuration(s) of the various sub-spans, the switching nodes must switch the traffic from the working channels of the failed span to the protecting channels of their non-failed span. This is done using well-known techniques.”

Claims 17 and 18 and 19

Similar to claim 1, claim 17 includes the term “connection configuration.” In addition, Claim 17 requires that the “means” provide for “different connection configurations on the protecting channels of said first and second spans responsive to protection switches and un-switches.”

Claim 18, dependent on claim 17, requires “a first of said plurality of channels to be part of two different sized connections programmed on said first and second span.” Thus, it is dealing with a first of the channels on the spans, not the first and second spans being of “different bandwidth” as indicated by the Office Action.

Claim 19, dependent on claim 17, requires “said means allows said first spans to have programmed thereon a concatenation of a plurality of the BLSR channels that is not programmed on said second span.” It is believed that the Office Action statement with

regard to claim 19 is incorrectly equating “concatenations” to “channels.” However, these terms are not equivalent.

Claim 21

Similar to claim 1, Claim 21 includes the term “connection configuration.” Claim 21 requires “wherein a first connection configuration programmed on a first of said sets of channels is not the same as a second connection configuration programmed on a second of said sets of channels.” It is worth noting the connection configuration is programmed “on” the channels. This is context of each “span” having “two sub-spans on which traffic travels in opposite directions,” each sub-span has “a plurality of channels,” and each plurality of channels includes “a set of working channels and a mutually exclusive set of protecting channels.”

Claim 34

Similar to claim 1, Claim 34 includes the term “connection configuration.” In addition, claim 34 requires “a traffic handler on each of said plurality of network elements that together reprogram the connection configurations of the protecting channels on at least certain of said sub-spans responsive to protection switches and un-switches.” Thus, claim 34 uses the terms “reprogram ... responsive to ... switches and un-switches” and targeting the “connection configurations” of the “protecting channels” “on” sub-spans to distinguish the prior art.

Claim 46

Similar to claim 1, Claim 46 includes the term “connection configuration.” Further, Claim 46 requires “programming ... ports .. so that their protection channels have programmed thereon the connection configuration.” The use of the terms “ports” and “thereon” distinguishing the switching performed by the switch.

Claim 57

Similar to claim 1, Claim 57 includes the term “connection configuration”
Further, Claim 57 requires “reprogramming ... a .. port .. so that its protecting channels have programmed thereon the connection configuration.”

Claim 64

Similar to claim 1, Claim 64 includes the term “connection configuration”
Further, Claim 64 requires “in a node of a ring network, storing a connection configuration programmed on working channels on each span of said ring network not directly connected to said node.” In other words, claim 64 requires the storage of connection configuration information of other nodes not directly connected. Takatori does not disclose the storage of such information (as discussed below with regard to the 103 rejection, neither does Lu). This information being used “responsive to a protection switch” to perform “reprogramming” of “ports .. so that their protecting channels have programmed thereon the connection configuration” of working channels programmed on the opposite direction sub-spans of the a span that failed. (The prior art in Applicant’s background uses the same concatenations on all its subspans, so it stores only one copy and does not need to reprogram – see paragraph 12.)

Remaining Dependent Claims Rejected as part of this Rejection

The remaining rejected claims are directly or indirectly dependent on an allowable independent claim as discussed above. For at least this reason, Applicant respectfully submits that this rejection has been overcome.

35 U.S.C. §103 rejection, Takatori in view of Lu

The Examiner has rejected Claims 6, 8-9, 11-16, 42, 44, 45 under 35 U.S.C. §103 as being obvious over Takatori in view of Lu.

Lu discusses switching for protection (col 2, lines 51-61), as well as ring tables and cross-connection information (col. 10, lines 10-34). However, Applicant can find no discussion or illustration of Lu that addresses the issue of concatenations.

Claim 9

Similar to claim 1, claim 9 includes the term “connection configurations.” Further, claim 9 requires “storing in a first set of structures connection configurations for the working and protecting channels programmed on the receiving side of the ports coupled to the sub-spans of the first and second spans.” Furthermore, claim 9 requires “storing in a second set of structures the connection configurations programmed on the working channels of those of said plurality of spans not directly connected to said node.” Since neither Takatori or Lu even discuss concatenations, it is not surprising that they do not describe or make obvious these claim limitations.

Claims 8, 42 and 44

Similar to claim 9, claims 8, 42 and 44 include “connection configuration programmed” on “channels” of “spans not directly connected.”

Remaining Dependent Claims Rejected as part of this Rejection

The remaining rejected claims are directly or indirectly dependent on an allowable independent claim as discussed above. For at least this reason, Applicant respectfully submits that this rejection has been overcome.

Allowable Subject Matter

Applicant thanks the Examiner for indicating allowability of certain of the claims. In the case of a final office action, Applicant will consider moving the limitations of the objected to dependent claims into the independent claims (not by way of agreeing with the rejections, but by way of allowing the application to issue with the intention of considering seeking the existing independent claims in a continuation).

Conclusion

Applicant respectfully submits that the rejections have been overcome by the amendments and remarks, and that the Claims as amended are now in condition for allowance. Accordingly, Applicant respectfully requests the rejections be withdrawn and the Claims as amended be allowed.

Invitation for a telephone interview

The Examiner is invited to call the undersigned at 408-720-8300 if there remains any issue with allowance of this case.

Charge our Deposit Account

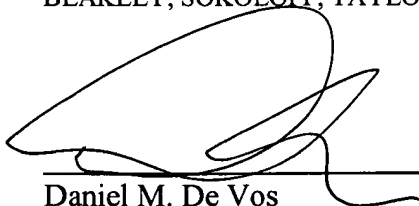
Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: _____

1/28, 2005



Daniel M. De Vos
Reg. No. 37,813

12400 Wilshire Boulevard
Seventh Floor
Los Angeles, California 90025-1026
(408) 720-8300